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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/727,861 | 12/04/2003 | Curt E. Metzbowcr | LDC-913 | 7904 |

23439 7590 12/27/2006
DENTSPLY INTERNATIONAL INC
570 WEST COLLEGE AVENUE
YORK, PA 17404

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| EXAMINER |
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LEWIS, RALPH A

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| ART UNIT | PAPER NUMBER |
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3732

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 12/27/2006 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/727,861

Applicant(s)

METZBOWER

Examiner

Ralph A. Lewis

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of claim 1 purports to set forth a "method of extruding dental material," however, the body of the claim sets forth no steps in accomplishing such extrusion. The preamble must be commensurate with the scope of the claim.

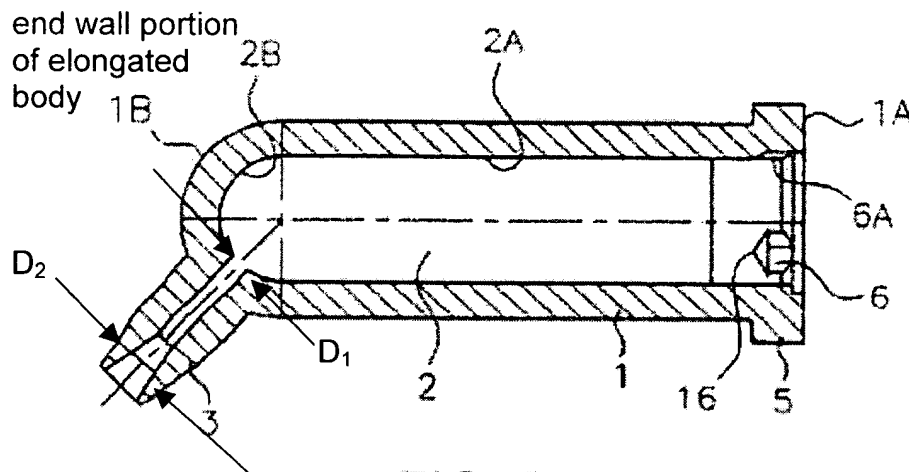
Rejections based on Prior Art

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evers et al (US 6,503,084) in view of Schulman (US 5,460,523).

Evers et al disclose in Figure 2 a capsule/cartridge 10 containing dental material having an elongated body 1 with nozzle 3. As identified below the inner channel wall of



nozzle has a diameter D_2 (at least at one point) which is significantly greater than the diameter of the chamber wall exit port D_1 . The Evers et al dental cartridge meets all the limitations of claim 1 with the exception of the requirement that the hemispherical end wall with arcing interior surface have a substantially greater thickness than the chamber wall of the elongated body. In Evers et al the wall thicknesses are essentially the same, Schulman, however, for a similar dental material cartridge teaches at column 3, lines 48-55 that "the thickest portion of the discharge nozzle wall surrounding the cylindrical communication is adjacent the hollow body end wall . . . the discharge nozzle is designed as such to withstand the pressure exerted by the plunging piston, which will be greater near the end wall than near the discharge opening." To have thickened the end wall/ nozzle portion of the Evers et al cartridge in order to better withstand the pressure from the piston as is taught by Schulman would have been obvious to one of ordinary skill in the art.

In regard to claim 2, note the cap 13 in Evers et al. In regard to claim 4, note column 6, lines 10-13 in Evers et al. In regard to claim 5, note column 6, line 6 of Evers et al. In regard to claims 6-9, the Evers et al illustrated diameter D_2 appears to fall within the ranges claimed. To have constructed the Evers et al diameter D_2 within such a range would have been obvious to one of ordinary skill in the art as a matter of routine in practicing the Evers et al invention.

Claims 11-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evers et al (US 6,503,084) in view of Schulman (US 5,460,523) as applied above and in further view of Bender (US 5,707,234).

In Evers et al the piston 12 and body end wall 2B do not appear to meet the "closely complementary" shape requirements in the last clause of claim 11. Bender, however, teaches that it is desirable form the two members in a complementary shape (note column 4, lines 63-67) in order to dispense the material without significant waste being left in the cartridge. To have formed the Evers et al piston 12 and body end wall of complementary shapes as taught by Bender so as to reduce waste would have been obvious to one of ordinary skill in the art.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Donahoe has left the Office and this application has been reassigned. Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R. Lewis
December 16, 2006


Ralph A. Lewis
Primary Examiner
AU3732